SEIT Technical Details



Mission Planning SEIC

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Overview

- Purpose and Overview
- Mission Planning Enterprise Roles/Responsibilities
  - Government Program Management
  - Framework
  - Common Software
  - UPC Developers
  - Legacy System
- Technical Tasks

Systems Engineering Integration Team

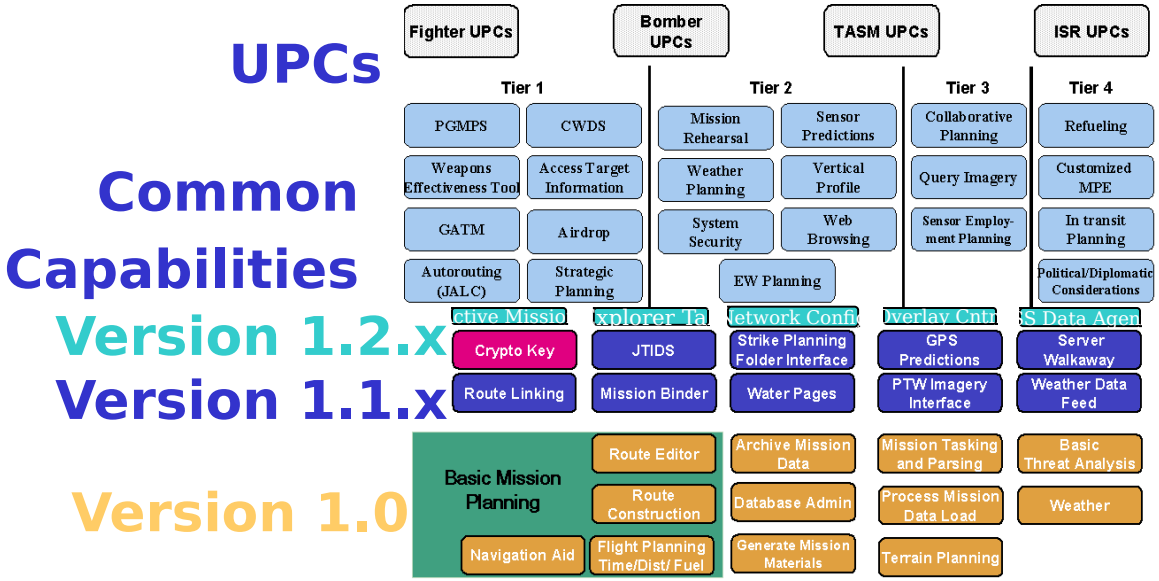
- Purpose
  - The Vision is to evolve Mission Planning into a cohesive set of mission planning tools and components for all of DoD and coalition partners.
  - Systems Engineering Integration Team (SEIT) will ensure that these tools and components are architecturally sound, robust, controlled, easy to use, integrate well with the system, adhere to government standards, and adhere to JMPS business and technical rules.

SEIT Sphere of Influence

- Key products provided via Mission Planning Enterprise Contract (MPEC) contractors
  - JMPS Framework Software, JMPS UPC Software, JMPS Common Software and Legacy systems
- SEIT goals
  - Foster migration from legacy systems to JMPS
  - JMPS Enterprise wide planning, software integration, risk management, etc…
- SEIT Sphere of Influence begins at the conceptualization phase
  - Varying degrees of influence on software development and integration (Framework, Common Software, and Unique Planning Components (UPC)) and level of support required by each Service.
  - Systems Engineering efforts across Mission Planning Enterprise

Why Do We Need a SEIT Contractor?

JMPS is growing rapidly with concurrent, interrelated software developments across multiple contractors and services



JMPS needs a Systems Engineering and Integration Team to foster this growth and ensure all the individual efforts work together

Version 1.0. Version 1.1.x Version 1.2.x



SEIC Core Competencies

- Large-Scale Integration Expertise ~ 1+ million lines of source code
- Enterprise Management expertise
- Object Model Expertise using Unified Modeling Language (UML) notation
- Software development expertise in technology area
- Efficient configuration management system
- Development Test expertise
- Developer Website/Help desk support services experience
- Training package preparation and conduct experience
- Security qualifications
- Effective documented management processes
  - Capability Maturity Model Integration (CMMI)
- Acceptance criteria for software components
  - Enforcement of technical rules
  - Design standards



SEIT Tasks

- Integration
- Requirements Analysis
- Architecture and Design Guidance
- System Evolution Management
- Understanding UPC Customer Needs
- CM/DM/QA Illities
- Cost, Schedule, Performance and Quality
- Risk Management
- Process Definition and Management
- User Support
- Engineering Management
- Government Program Management Support
- Developer Support
- Maintain Close Coordination with Warfighters

SEIC Tasks

- **System Engineering**
  - **Requirements Analysis.** {Review FY04/05 Common Capability (CC) packages for Mission Planning Enterprise Contract (MPEC)s}
  - **Interdependency Analysis.** {Define CC interdependencies, refine integration schedule based on findings}
  - **Interface Definition.** {Develop interfaces for CC and Framework (FW)}
  - **Requirements Traceability.** {Trace from Operational Requirements Document (ORD) to test}
- **Architecture and Design**
  - **Review and extend Object Model, Top-Level Architecture, Data Architecture, and CCs adherence to architecture technical rules.**
  - **External Interface Analysis.** {Identifying automated interfaces (e.g. Air Tasking Order (ATO)}
  - **Technical Standards.** {Design, Common Operating Environment (COE), User Interface and Windows Logo}
  - **Performance Analysis.** {Tools/strategies to improve performance, Key Performance Parameters (KPP) relation to components}
  - **Component Design Support.** {Proper use of FW and CCs}

SEIC Tasks

- **System Evolution. {Roadmap}**
- **Engineering Management. {Configuration Management (CM), Software development Metrics, knowledge repository, Component Management registering, receiving, scheduling, tracking delivery of data rights/software components}**
- **System Integration. {Integration plans, responsibilities, horizontal integration among JMPS CCs, integration of Software Development Kits (SDK)s, Wizards and Generic Unique Planning Components (GUPC)s}**
- **System Test. {Component test, System test, Regression tests}**
  - **Generic Test Procedures. {Validating UPC/CC/FW}**
  - **Problem Reporting System. {Centralized reporting system}**
- **Examples of Special Studies**
  - **Advanced Computer Flight Planning (ACFP) High Performance team (HPT) Support. {Support migration to JMPS}**
  - **Life Cycle Upgrade. {Support Mission Planning System (MPS) upgrade C2.3}**
  - **Synchronized Air Power Management (SAPM) Phase II.**

Typical Product Responsibilities

Key Yellow SEIT
Green Government
Blue Common Softw
/framework maintainer dev

Mission Planning SEI

Developer defined as Framework Maintainer, Common Software

Future Requirements Management	Program Management					
	Systems Requirements Analysis	Req. and Design Compliance	Integration Test	System Test	Operational Test	Warfighter Use
Assist					Assist	Assist

HW/SW Req. Ana.	Component Test	Component Integration Test

Government Program Mgnt

- Future Requirements Management
- Program Planning
- Controlling the Technical Effort
- Product Line Evolution Management
- Contract Management
- Program Funding
- Risk Management
- System Architectural Consideration
- Organizational development

Typical Products

Risk Management Process
Requirements Process

Developer

- HW/SW Requirements Analysis
- HW/SW Design
- Design Component
- Design Capability
- Component Test
- Capability Testing
- Risk Management
- Technical Rules, Standards
- Metrics
- Training inputs

Typical Products

Software Requirements Specification
Interface Design Documentation
Programmers Guide
Component test procedures
COE compliance Level 6
Security compliance & Metrics

SEIT Tasks

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Typical Products

Top-level Architecture, Integrated Master Schedule, Metric reports, Data Model, CM

Gov't Program Management

Future Requirements Management

Assist

Program Management

Key (SC) SEIT Contractor
(G) Government
(CC) Common Software/framework maintainer developers
(B) SC and/or G

Government Program Mgnt

- **Future Requirements Management**
- **Program Planning**
- **Controlling the Technical Effort**
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- **Organizational development**

Typical Products

Risk Management Process

Requirements Process

- **SPO is streamlining Government activities.**

1. The Governments intention is to contract out other than Inherently Governmental functions under the SEIC, day-to-day Mission Planning program execution activities;
   a. Enterprise Integration Schedule management (SC)
   b. Contract admin support tasks (SC)
   c. Financial management tasks (SC)
   d. Business operations (SC)
   e. Mission Planning Environment management (SC)
2. The SEIC contractor will develop a transition plan. (SC)
3. Migration of platforms to JMPS (B)

- **Future Requirements Manage**

1. Development/adherence to Requirements Process (G)
2. Identify and manage future requirements in accordance with the requirements process (SC 50% AF:Hanscom 25%, N 25%)

Gov't Program Management

Mission Planning SEI

Future Requirements Management

Assist

Program Management

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Typical Products

Risk Management Process

Requirements Process

- **Program Planning / Scheduling**

1. Provide direction to be given to contractors of the level of detail and incorporation of changes for schedule, i.e contractors deliverables (G)
2. Establish operational need dates (G)
3. Approve schedule (G)
4. Provide external system schedules (G)

Controlling the Technical Effo

1. Approve system level use cases, interfaces, object model, build content and changes (G)
2. Systems engineering team provides advice to the government regarding direction to be given to contractors concerning use case, interface, object model level of detail and incorporation of changes to all contractors (G)

- **Product Line Evolution**

1. Systems Engineering provide inputs on roadmap milestones and options (G)
2. Systems Engineering provides advice regarding direction to be given to contractors concerning level of detail and incorporation of changes to all contractors

Gov't Program Management

Future Requirements Management

Assist

Program Management

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Government Program Mgnt

- **Future Requirements Management**
- **Program Planning**
- **Controlling the Technical Effort**
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Typical Products

Risk Management Process

Requirements Process

- **Contract Funding**
  - Provide contracts management (G) (See contract)
- **Program Funding**
  - Obtain/retain program funding (G)
- **Risk Manageme**
  - Manage risks in accordance with existing JMPS documented Risk Management Process (G)
  - Ensure compliance for risk process (G)
- **System Architectural Considerat**

1. Approve use cases/requirements, interfaces, object model, what is contained in the builds (SC 80%, AF:Hanscom 10%, Navy 10%)
2. Review performance analysis (SC 75%, AF Hanscom 12%, Navy 13%)
3. Ensure JTA/COE compliance standards are met (SC 100%)
4. Provide guidance to software developers regarding top level system architecture (SC 75%, AF:Hanscom 13%, Navy 12%)
   1. Level of detail for use cases, interface, object model

- **Organizational Development**
  1. Develop Organization (B)

SEIT Tasks

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Mission Planning SEI

Systems Requirements Analysis	Req. and Design Compliance	Integration Test	System Test	Operational Test	Warfighter Use
				Assist	Assist

- **Integration**

1. Perform Vertical and horizontal integration of common software (SC 50%, AF:Hanscom 5%, Navy 45%)
2. Provide integration support for UPC, as required (SC 50%, AF:Hanscom 5%, Navy 45%)
3. Provide UPC compatibility testing (SC 50%, AF:Hanscom 5%, Navy 45%))
4. Coordinate between common software developers to ensure compatibility (SC 75%, AF/H 12%, Navy 13%)
5. Establish/ensure adherence to design stds (SC 75%, AF:Hanscom 12%, Navy 13%)
6. Ensure compliance with business, tech rules (SC 75%, AF/Hanscom 12%, Navy 13%)
7. Provide integration support for User Devl Apps (SC 75%, AF:Hanscom 12%, Navy 13%,)
8. Ensure devl of and maintain C4ISP architecture dat views, in accordance with C4ISP framework (SC 80%)
9. System Verification and Validation
    1. Support Govt DT/OT for developers (SC 50%, AF:Hanscom 25%, Navy 25%)
    2. Conduct system to systems compliance test (i.e C4ISP) (SC 50%, AF:Hanscom 25%, Navy 25%)

SEIT Tasks

- **Integration**
- **Requirements Analysis**
- **Architecture and Design Guidance**
- **System Evolution Management**
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- **CM DM QA Ilities**
- **Cost, Schedule, Performance, Quality**
- **Risk Management**
- **Process Definition and Management**
- **User Support**
- **Engineering Management**
- **Government Program Man. Support**
- **Developer Support**
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Typical Products

Top-level Architecture, Integrated Master Schedule, Metric reports, Data Model, CM Plan

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- **Integration (continued)**
  10. Perform Security certification/Accreditation (SC 75%, AF:Hanscom 15%, Navy 15%)
  11. Provide Public Interface control (SC 75%, AF:H 13% Navy 12%)
  12. Integrate and test JMPS Framework and common software (SC 75%, AF:Hanscom 6%, Navy 19%)
  13. Integration of additional flight planning software per government request. (SC 75%, AF:H 12%, Navy 13%)
  14. Assist other developers asynchro testing (SC 75%, AF:Hanscom 6%, Navy 19%)
  15. Support compatibility testing among UPCs (SC 50%, AF:Hanscom 6%, Navy 19%)
- **Requirements Analysis**
  1. Manage and review JMPE System rqmts (SC 50%, AF:H 25%, Navy 25%)
  2. Develop JMPE System requirements, ie. ISRT inter-service requirements team (SC 50%,AF 25%, N 25%)
  3. Manage high-level Us se data base and traceability to system requirements and system tests (SC 50%,AF:H 25%, Navy 25%)
  4. Manage operational Use Case data base and traceability to system rqmts, system tests (SC 50%, AF:H 25%,N25)

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- **Requirements Analysis (continued)**
  1. Support the software developers regarding compliance with the top level system architecture (SC 75%, AF:Hanscom 12%, Navy 13%)
     1. Level of detail for use cases, interface, object model (G)
     2. Ensure all interface/requirements disconnects are resolve[illegible]C 80%, AF:Hanscom 10%, Navy 10%)
- **Architecture and Design Guidance**
  1. Ensure system-systems compliance (C4ISP)(SC 75%, AF:Hanscom 13%, Navy 12%)
  2. Develop/maintain top level architecture, identify Interdependencies between CC and Framework components, and data modeling (SC 75%, AF:H 12%, Navy 13%)
  3. Provide design guidance in accordance with operational, system and technical architectures (SC)
- **System Evolution Management**
  1. Build roadmap with milestones (SC 50%)

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- **System Evolution Management**
  1. Manage COTS, Software, Hardware
     a. Evaluate COTS , Software and Hardware upgrades and provide recommendations, anticipate evaluation once a year (SC)
     b. Purchase upgrade (G)
     c. Recommend COTS product integration into next maintenance release (SC)
     d. Provide COTS, Hardware, and Software upgrades, if required (G)
     e. Manage licenses (G)
- **Understanding UPC Customer ne**
  1. Attend design reviews, TIMs, UPC events, working groups (i.e COE) etc..) (SC 75%, AF:Hanscom 12%, Navy 13%)
     1. ~63 (AF/Navy/Army) UPCs (potential for fewer meetings, since a contractor may build more than one UPC) over 7-10 yrs
     2. ~40 Common Capabilities (many components may be reviewed at once since there is only a

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Mission Planning SEI

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- **Understanding UPC Customer needs**

1. Participate in Working Group Support (i.e developer, COE, etc..) (SC 75%, AF:Hanscom 12%, Navy 13%)

- **CM DM QA illities**

1. Maintain comprehensive knowledge repository (SC)
2. Manage Master Software Configuration, (source code, docs, etc..) including management of multiple baselines, captured in CM Plan (SC 50%, AF Hansco%, Navy 40%)
3. Provide Hardware System configuration management (as installed) (G)
4. Control, distribute and archive all versions (framework, Common Components and service specified tasks for UPCs) (G-Navy, B-AF, Army)
5. Build and test integration test scripts (SC 50%, AF:Hanscom 5%, Navy 45%)
6. Build and test developer install scripts (SC 80%, AF:Hanscom 2%, Navy 18%)
7. Maintain integrated programmers guide, Interface Control Documents, certifications, standards (SC 90%, AF:Hanscom 1%, Navy 9%)

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- **Cost, Schedule, Performance, Quality**
  1. Development of Integrated Master Schedule (SC)
  2. Tracking of costs (G)
  3. Provide Performance assessment and identification of bottlenecks (SC 75%, AF:Hanscom 23%, Navy 3%)
- **Risk Management**
  1. Manage risks by extending existing JMPS documented Risk Management Process (SC 50%, AF:Hanscom 25%, Navy 25%)
- **Process Definition and Management**
  1. Define and manage CM Process (SC 80%, AF:Hanscom 10%, Navy 10%)
  2. Define Multiple Baseline Processes (SC 80%, AF:Hanscom 10%, Navy 10%)
  3. Define and manage CDRL process (G)
  4. Define and manage Risk Management Process (G)
  5. Define and manage Metrics Process (SC 80%, AF:Hanscom 10%, Navy 10%)
  6. Define and manage Problem Reporting Process (SC 80%, AF:Hanscom 10%, Navy 10%)

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- **User support**
  1. Provide Hot Line, Help Desk, Web site for users (
  2. Manage operational releases, including tech data
  3. Build releasable configurations for field (G)
  4. Provide release notifications to the field (G)
  5. Distribute releases (Web, CD) for field operations
  6. Assist in network installations for field operations
  7. Integrate GFI and UPC training modules (G)
  8. Publish and distribute training material (Web, CD
  9. Provide online learning courses (G)
  10. Develop integrated users manual (G)
  11. Provide onsite support to users (G)
  12. Provide JMPE Support to Sustainment team (SC)

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- **User support (continued)**
  12. Provide system setup and checkout (G)
  13. Perform system procurement(G)
  14. Develop and execute User Training (G)
  15. Provide Inventory control point (G) (including management of repair contracts)
  16. Maintain user licenses (G)
  17 Perform site activation (G)
- **Engineering Management**
  1. Investigate and recommend best approach for a Centralized Problem Reporting System, document in CM process (SC 80%, AF:Hanscom 10%, Navy 10%)
  2. Provide Deficiency Reporting (DR) database (G)
  3. Collect/Report Metrics, according to metrics plan (SC 80%, AF:Hanscom 10%, Navy 10%)
  4. Ensure compliance with Business, Technical Rules (SC 75%, AF:Hanscom 12%, Navy 13%)
  5. Manage SEIT activities through a Project Schedule (SC 50%, AF:Hanscom 25%, Navy 25%)
  6. Assist in defining SEIT contractor roles and responsibilities (SC 50%, AF:Hanscom 25%, Navy

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- **Government Program Man. Support**
  1. Support of government program tasks (SC)
- **Developer Support**
  1. Provide Developer Training, SDKs, Wizards (SC)
  2. Provide Helpdesk, hotline (SC)
  3. Maintain Website (SC)
  4. Provide consulting guidance, and support (SC)

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- **Maintain close coordination with Warfighters**

1. Define roles/responsibilities (SC 50%, AF:Hanscom 25%, Navy 25%)
2. Assist with Market Mission Planning services to community (SC 25%, AF:Hanscom 38%, Navy 38%)
3. Develop ways to support UPC devl efforts (SC 75%, AF:Hanscom 13%, Navy 13%)
4. Develop ways to support/market for foreign sales (SC 10%, AF:Hanscom 45%, Navy 45%)
5. Participation in Mission Planning User Conferences, and OAG (SC 25%, AF:Hanscom 38%, Navy 38%)
6. Participation in meetings with warfighters, showing demo's, prototypes, and use cases, per govt request (SC 50%, AF:Hanscom 25%, Navy 25%)
7. Participation in Joint Requirements Board (JRB), per government request (SC 50%, AF:Hanscom 25%, Navy 25%)
8. Support quarterly exercises, i.e red flags, JEFX, JTFX, at government request (SC 50%, AF:Hanscom 25%, Navy 25%)

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HW/SW Req. Ana.	Component Test	Component Integration Test

Developer

- HW/SW Requirements Analysis
- HW/SW Design
- Design Component
- Design Capability
- Component Test
- Capability Testing
- Risk Management
- Technical Rules, Standards
- Metrics
- Training inputs

Typical Products

- Software Requirements Specification
- Interface Design Documentation
- Programmers Guide
- Component test procedures
- COE compliance Level 6
- Security compliance & Metrics

- **HW/SW Requirements Analys**

1. Develop Use Cases (CC)
2. Assist in HW, COTS evaluation, if required (CC)
3. Provide inputs for User Manual & Programmer Guide (CC)
4. Provide inputs for Interface development (IDD), and maintain control of I/F (CC)

- **HW/SW Design**
- **System Architecture**

1. Implement JMPS IPT Approved system level use cases (CC)
2. Develop interfaces, object model, build content and provide for changes (CC)
3. Build/implement Object Model to top level system architecture as defined by the government (CC)
4. Build components – level of componentization as defined from System Architecture (CC)

- **Design Component**
- **Design Capability**

Developers

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Developer

- HW/SW Requirements Analysis
- HW/SW Design
- Design Component
- Design Capability
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- Training inputs

Typical Products

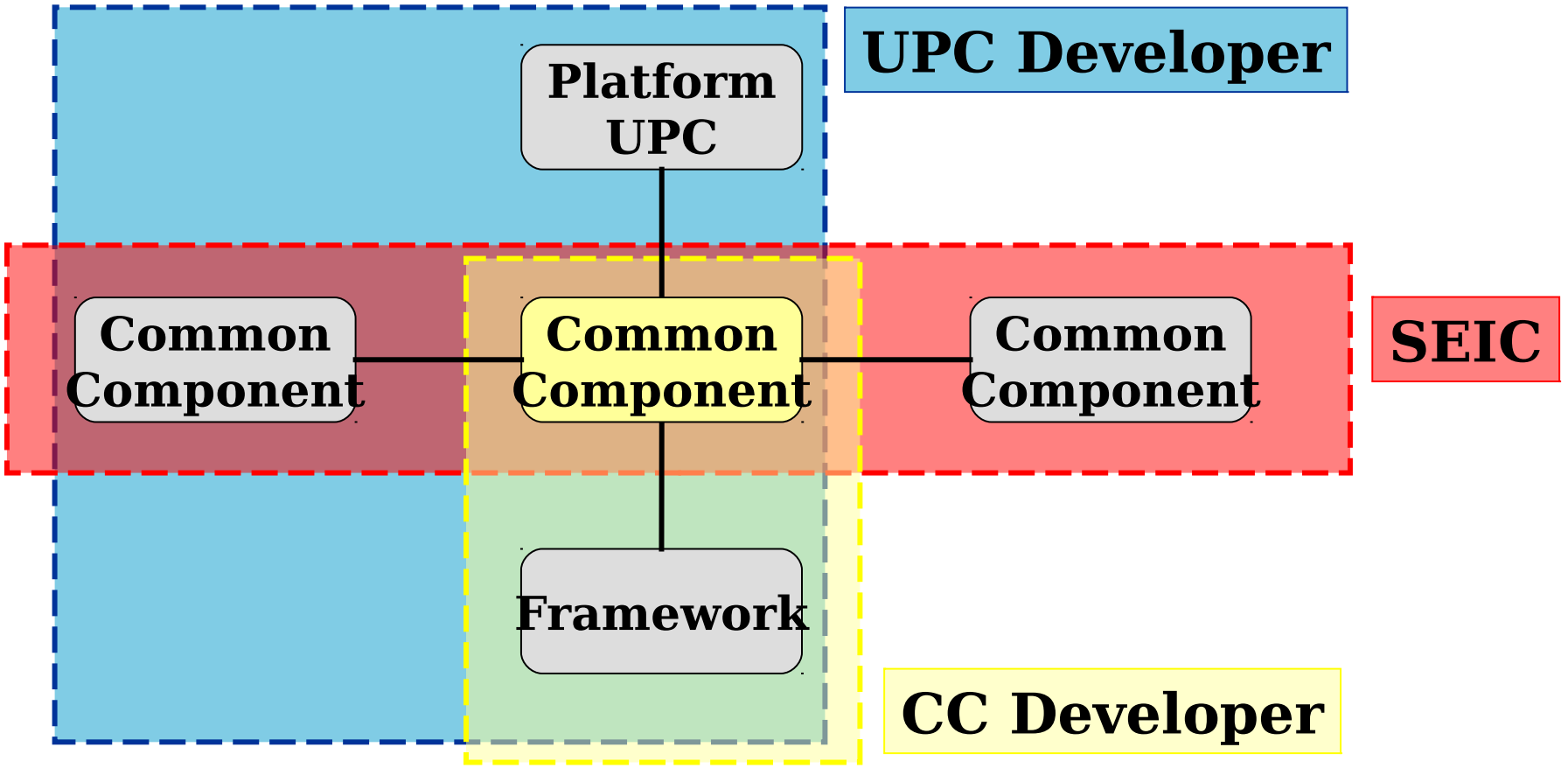
- Software Requirements Specification
- Interface Design Documentation
- Programmers Guide
- Component test procedures
- COE compliance Level 6
- Security compliance & Metrics

- **Component test**
  1. Perform Component qualification test (CC)
  2. Develop/Comply with test plan, procedures, and provide results of testing (CC)
- **Capability testing**
  1. Review JMPE System test to avoid duplication (CC)
  2. Conduct requirements test of component (CC)
  3. Conduct certification test (COE, Security) (CC)
- **Risk Management**
  1. Manage risks in accordance with existing JMPS documented Risk Management Process (CC)
  2. Execute Risk Management (CC)
- **Comply with JMPS Business and Technical Rules, Standards (CC)**
- **Metrics input**
  1. Comply with SEIT Metrics plan (CC) (Metrics CDRL)
- **Training**
  1. Provide training inputs for instruction/manuals

Next Steps SEIC

- Anticipate defining MPECs delivery order packages
  - Review of Common Capabilities Requirements packages developed under short-term SEIC
- A Transition Plan, describing how Mission Planning will transition from a short-term to a long-term SEIC
  - A Strawman *Transition Plan* will be part of the Offerors library.

Horizontal/Vertical Integration



Integration Illustration

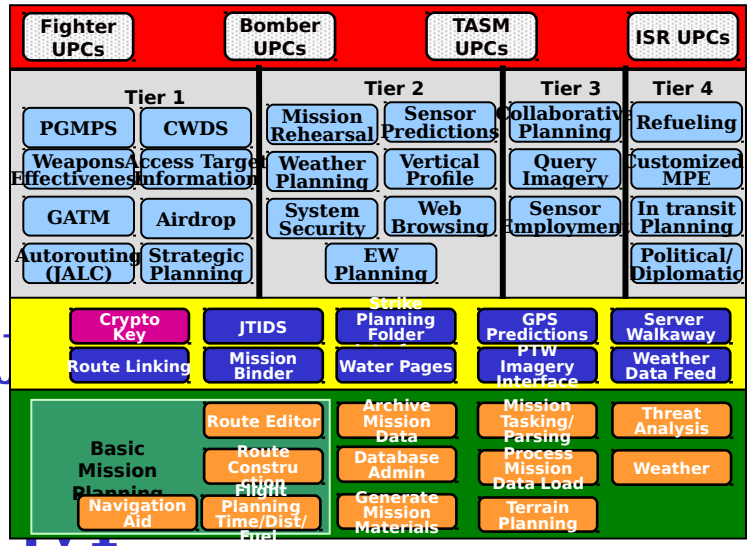
Horizontal Integration

UPCs

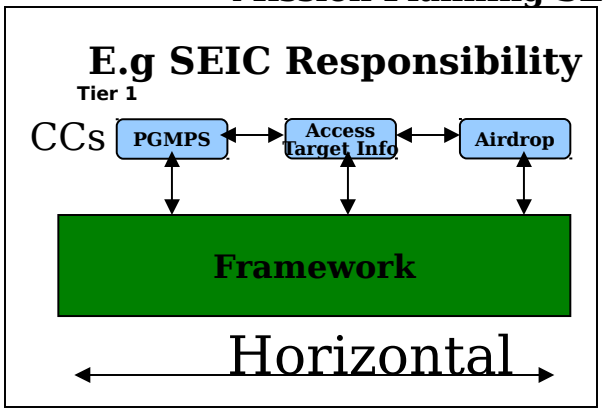
Future Common Capabilities

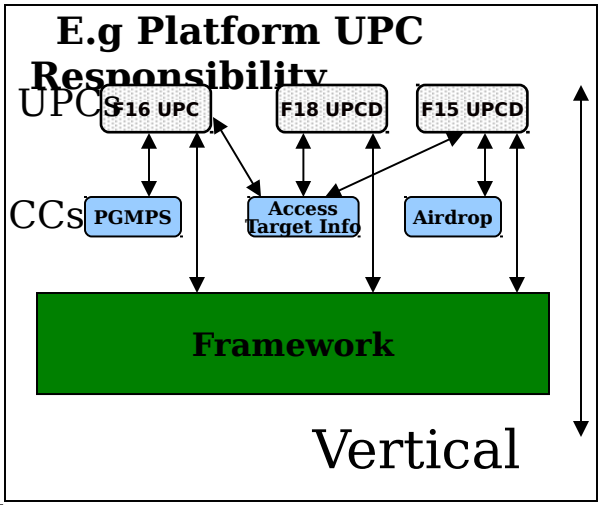
In development

Framework/ Flight Planning



Vertical Integration





- Horizontal (CC to CC) integration
- Vertical (Framework to CCs to Platform UPC) integration

SEIT Roles/Responsibilities:

Government Program Management	SEIC	JMPE Developers(FW/ CS)	UPC	Legacy systems
Government Business Ops maintain master baseline requirements and schedule • manage and approve changes to ORDS, Mission Needs Statement (MNS).	SEIC Contractor assess current baseline • identify and track new requirements • identify cost and schedule impacts • submit new requirement to government for review and approval • submit updates to requirements documentation • identify and resolve requirements disconnections.	JMPE Developers assess current baseline • identify and track new requirements • identify cost and schedule impacts • identify requirements disconnections • submit reqts to government	UPC Developers assess current baseline • identify and track new requirements • identify cost and schedule impacts • identify requirements disconnections • submit reqts to government	N/A
Systems Engineers review/develop a subset of CC requirements packages for MPEC JRB members manage Joint Review Board (JRB) • define technical system integration performance	SEIC Contractor execute a requirements management approach. • trace from requirements documents to software components to test procedures. • track requirements changes SEIC Contractor review/develop CC requirements packages	JMPE developers develop requirements • develop Software Specification (SRS) • deliver SRS to SEIC • participate in working group	UPC developers develop requirements • develop Software Specification (SRS) • deliver SRS to SEIC • participate in working	

SEIT Roles/Responsibilities: Program Planning and Scheduling

Mission Planning SEI

Government Program Management	SEIC	MPEC Framework (FW) and Common Capabilities (CC) developers	MPEC UPC developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Government Business Ops Management of Program schedule • Approve schedule level of detail • Provide timely schedule information to SEIC • Review and coordinate draft schedule • Support issue resolution, participate in working group meetings to resolve issues, as necessary • Review schedule changes and address how other program schedule	SEIC Development and execution of schedule • Propose schedule level of detail • Collect JMPS schedule information (e.g., programmatic, development, operational, and test activities/events) • Develop an integrated milestone schedule for JMPS integrate inputs into IMS • Enterprise Integrated Master • Schedule (IMS) OWNER • Coordinate schedule with other JMPE, UPC teams and	MPEC FW and Common Capabilities Development and execution of schedule • Provide milestone inputs for IMS based on approved level of detail for schedule to SEIC contractor • Perform according to schedule • Provide information on schedule impacts, • participate in JMPS meetings as tasked by Government PM • Updating the Contractor with Developers schedule status • Integrated	MPEC UPC Development and execution of schedule • Provide milestone inputs for IMS based on approved level of detail for schedule to SEIC contractor • Perform according to schedule • Provide information on schedule impacts, • participate in JMPS meetings as tasked by Government PM • Updating the Contractor	Legacy Development and execution of schedule •Provide milestone inputs for IMS based on approved level of detail for schedule to SEIC contractor •Perform according to schedule •Provide information on schedule impacts, •participate in JMPS meetings as tasked by Government PM •Updating the Contractor wi

SEIT Roles/Responsibilities: Program Planning and Scheduling (con

Government Program Management	SEIC	MPEC FW/CC developers	MPEC UPC develoe prs	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Government Business Ops Management of Program Schedule (continued) • Provide inputs to support development of integrated milestone schedule information for reviews, participate in program reviews as necessary • Define Operational need dates • Review IMS(s) provide • comments and approve • Provide contractor external system schedules • Suggest changes to Schedule based on external system	SEIC Development and execution of schedule • Identify and track critical path and resource loaded schedule • Maintain control of integrated milestone schedule, identify impact of proposed changes and coordinate with JMPS participants • Provide proposed schedule changes and address how other program schedule changes impact their program, participate in JMPS meetings as required • Provide integrated milestone schedule/information for JMPS program progress/management reviews • Review UPC, CC, Common UPCs, Platform UPCs schedules • Provide status identify disconnects causing risks • Review Developer Schedules, integrate inputs into IMS. Submit Schedule via CDRL			

SEIT Roles/Responsibilities: Program Planning and Scheduling (cont)

Government Program Management	SEIC	MPEC (FW/CC) developers	MPEC UPC developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Government Business Ops Management of Program • Review and approve all RFD, Change Proposals, Cost Performance Reports, and CWBSs.	SEIC Execution of contract • The Contractor shall create and maintain Contracts Funds Status Report (CFSR) as CDRL Owner. • The Contractor shall create and maintain Request for Deviation (RFD) as CDRL (Owner) • The contractor shall create and maintain Engineering Change Proposals as CDRL (Owner) • The Contractor shall create and maintain Contract Change Proposal (CCP) as CDRL (Owner) • The Contractor shall create and maintain Cost Performance Report (CPR) as CDRL Owner • The Contractor shall create and maintain Contract Work Breakdown Structure (CWBS) at minimum level 3 as CDRL (Owner)	MPEC FW & Common Capabilities Execution of contract Same (RFD, CP, CPRs and CWBS)	MPEC UPC Execution of contract Same (RFD, CP, CPRs and CWBS)	Legacy Development Execution of contract Same (RFD, CP, CPRs and CWBS)

SEIT Roles/Responsibilities: Managing the Technical Effort *Interfaces*

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Systems Engineering Interface management • defines the level of detail and Resolve interface disconnections • Provide advice on interface changes and potential impacts to other Component developers/ external systems	SEIC Interface development • Define all JMPE component interfaces (including CC, FW Maintainers) and document in Interface Requirements Specification CDRL (Owner) • Review all UPC interfaces for compatibility • Identify disconnects Causing risks • Maintain/control all JMPE (including Framework Maintainer /UPC interfaces changes	MPEC: FW/CC developers Interface Development • Provide interface requirements specifications input to contractor for inputs to IRS • Identify impacts for changes to interfaces • Provide interface design descriptions and IDL • Implement component • Interface, and status • updates to interface to Contractor, through participation in Interface Control Working Group	MPEC UPC developers Interface development • Provide interface requirements specifications input to contractor for inputs to IRS • Identify impacts for changes to interfaces • Provide design reviews to review interface designs, as well as detailed design • Provide contractor with UPC JMPE interface extensions and changes • Provide Contractor with all UPC unique interfaces and changes • Implementation of UPC JMPE interface extensions changes • Implementation of UPC unique interfaces changes, Interface	Legacy developers Design review •Provide Design reviews to Review Interface design

SEIT Roles/Responsibilities: Managing the Technical Effort *Object Model*

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Systems Engineering Team Model development • provides advice to the Government Regarding direction to be given to Contractors concerning use case, interface, object model level of detail • incorporation of changes to	SEIC Develop and maintain an object model • Analyze object model to identify potential common capabilities. • Also identifying potential duplication Object Model OWNER	MPEC FW/CC developers Development of object model • Submit object model Inputs, including component design. • Keep object model Designs current, with regular releases to contractor • Provide object model consistent with UML practices.	MPEC UPC developers Development of object • Review JMPE object model, evaluate disconnections And provide contractor status • Provide design data to contractor in support of object model development and maintenance • Provide object model consistent with UML practices.	Legacy developers Designs •Provide Design reviews to Review Object Model design

SEIT Roles/Responsibilities: System Evolution

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Government Business Operations Roadmap • Provide initial JMPS Roadmap to be extended by JMPS team. • Review and approve plans for incorporation of new technology	SEIC Roadmap • Review UPC, CC, Common UPCs, Platform UPCs future roadmaps • Provide status identify disconnects causing risks • JMPS Roadmap inputs • Update new technology Milestones, upon acceptance in program Baseline • If requested, analyze new technology for Application to JMPE in the form of a trade study and Provide recommendations to Government for	MPEC FW/CC developers Roadmap • Provide roadmap inputs • Updating the contractor with changes in status • JMPS Roadmap input provider • Support contractor, if Requested by govt to provide/assess impacts Of technology analysis Framework Maintenance/CC and provide results in a Trade study and • Provide recommendations to	MPEC UPC Developers Roadmap Provide roadmap inputs Updating the contractor with changes in status JMPS Roadmap Input provider Support contractor, if requested by govt to provide assess impacts of technology analysis in a trade study UPCs and provide Recommendations to Govt for approval	Legacy developers Roadmap •Provide roadmap inputs •Updating the contractor with changes in status •JMPS Roadmap Input provider •Provide information and participate in Technology assessments as tasked by Government PM

SEIT Roles/Responsibilities: Risk

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Government Business Operations Risk Management • Develop a Risk • Reduction Strategy and action plan • Execution assessment • Development of an integrated risk process and program risks	SEIC Risk Management • The contractor shall manage risks in accordance with the risk plan for the JMPS Program. • The contractor shall provide, mitigate and status program risks (I.e schedule interfaces) for JMPE • Provide risk information and attend risk meetings.	MPEC FW/CC developers Risk Management • Provide risk inputs, mitigation of risks assigned to framework maintainer and CCs • Updating the contractor with changes in risk status • The framework Maintainer shall manage risks in accordance with the • Risk plan for the JMPS Program. Risk Input Provider • Provide risk information and attend risk	MPEC UPC developers Risk Management • Provide UPC risk Inputs, mitigation of risks assigned to UPCs • Updating the contractor with changes in risk status, specifically impact the JMPE development • The UPC developers shall manage risks in accordance with the Risk plan for the JMPS Program. Risk Input Provider • Provide risk information and attend risk	Legacy developers Risk Management •Provide risk Inputs, mitigation of risks assigned to Legacy systems •Updating the Contractor With changes in risk status, specifically that impact the JMPE development •The legacy developers shall manage risks in accordance with their current Risk plan for the Program. Potential risk input

SEIT Roles/Responsibilities: System Architecture

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Systems Engineering System architecture • Provide assessment of Contractor allocation of timing budgets to all JMPS components with Evidence reasoning to support a Responsive mission planning system. • This shall be in conjunction with the Government's investigation. • Provide JTA for Compliance requirements for User interface	SEIC System Architecture • The contractor shall be responsible for system engineering of all common capabilities into the JMPS Framework, including recommending additional interfaces to support external systems to all JMPS components. Dependency definitions.	MPEC FW/CC Developers System Architecture • Framework maintainers /CC Developers shall ensure The Framework maintainers & CCs utilize System Engineering developed by the Contractor in building their components	MPEC UPC developers System Architecture • UPC developers shall ensure the UPC shall utilize system Engineering developed by the Contractor in building their components	MPEC Legacy systems developers shall notify contractor, if there are impacts To their development with system Engineering documentation.

SEIT Roles/Responsibilities: System Architecture

Government Program Management	SEIC	MPEC FW/CC developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
System Engineers Performance • Review • Performance metrics • Monitor Performance test to verify Results of Requirements	SEIC Maintain and manage standards, including USI, coding, XML, and performance standards, across JMPS Components. • develop/track Performance metrics, Monitor developers performance against their published schedules and performance metrics. Identify critical paths/bottlenecks. Provide report to Gov't to include SEIC performance against metrics. • Performance guidelines, • Performance timing allocations to Components Define plans to improve performance Submit performance analysis results • Ensure User interface complies with Joint Technical Architecture (JTA)	MPEC FW/CC developers provide inputs for dependencies, Interfaces and systems engineering • inputs for Performance metrics • FW/CC inputs for Timing Budgets • FW/CC compliance With standards, XML guidelines, USI coding, performance standards updates to contractor • comply/provide with performance improvement • User interface complies with JTA and user inputs for appearance & Behavior Top level architecture, performance metrics,	MPEC UPC developers inputs for dependencies, Interfaces and systems engineering • inputs for Perf. metrics • UPC inputs for Timing Budgets • UPC compliance With standards, XML guidelines, USI coding, performance standards updates to contractor • comply/provide with performance improvement • User interface complies JTA, user inputs for appearance & behavior UPC shall provide updates to	Legacy System Develops shall Identify Changes to JMPE as a result of their Development

SEIT Roles/Responsibilities: System Architecture

Government Program Management	SEIC	MPEC FW/CC developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
System Engineers Performance • Review • Performance metrics • Monitor Performance test to verify Results of Require	SEIC Maintain and manage standards, including USI, coding, XML, and performance standards, across JMPS Components. • develop/track Performance metrics, Monitor developers performance against their published schedules and performance metrics. Identify critical paths/bottlenecks. Provide report to Gov't to include SEIC performance against metrics. • Performance guidelines, • Performance timing allocations to Components Define plans to improve performance Submit performance analysis results • Ensure User interface complies with Joint	MPEC FW/CC developers provide inputs for dependencies, Interfaces and systems engineering • inputs for Performance metrics • FW/CC inputs for Timing Budgets • FW/CC compliance With standards, XML guidelines, USI coding, performance standards updates to contractor • comply/provide with performance improvement • User interface complies with JTA and user inputs for appearance & Behavior Top level architecture,	MPEC UPC developers inputs for dependencies, Interfaces and systems engineering • inputs for Perf. metrics • UPC inputs for Timing Budgets • UPC compliance With standards, XML guidelines, USI coding, performance standards updates to contractor • comply/provide with performance improvement • User interface complies JTA, user inputs for appearance & behavior UPC shall provide updates to	Legacy System Develop s shall Identify Changes to JMPE as a result of their Development

SEIT Roles/Responsibilities: Horizontal/Vertical Integration

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems
System Engineers develop definitions **Horizontal integration** **Defined as** • **Common Capability to Common Capability integration, as well as SDKs, Wizards and Generic UPCs to Framework integration. User developed and other application to Framework integration** **Vertical Integration defined as** • **Vertical Integration responsibility of Platform UPCs, including UPC to Framework, and UPC to Common Software Integration.** • **Identify desired functionality, identify desired component for integration**	**SEIC Develop MP Central** • **MP Central will be a repository for MPEC developers to check in/out source code on a daily basis as engineering releases that eventually end up as releases.** • **SEIC shall build enterprise from Mission Planning Central** • **Government MPSC will make deliveries from MP Central** **Horizontal Integration** • **Monitor CC/FW formal testing efforts** • **Integrate CC to CCs against requirements** • **Integrate SDKs, Wizards, Generic UPCs to FW** • **Identify and resolve duplicate functionality,** • **Determine where to locate functionality in infrastructure/architecture for integration/interface with other components (UPCs, CC, Framework).** • **Define and test interfaces.** • **Provide identification of interdependencies between CCs.** • **Planning should include but may not be limited to securing necessary facilities, system resources, and data feeds.** • **Test and reporting of results on a website** • **Provide interface testing scripts of interfaces to ensure ease of I/F Integ**	**FW/CC developers** **Vertical Integration** • **Post build/integrate FW and CC components to MP Central in coordination with the most stable release identified by the SEIC** • **FW and CC responsible for integration activities of CC and JMPS Framework** • **Provide interface stubs for interfaces not yet defined.** • **Once defined develop/test interface.**	**UPC developers** **Vertical Integration** • **Responsibility of Platform UPCs, including UPC to Framework, and UPC to Common Capability Integration.** • **Post, build/integrate to MP Central all UPC component in coordination with the most stable release identified by the SEIC** • **UPC responsible for integration activities of UPC and dependent JMPS Framework and dependent Common Capabilities** • **Provide interface stubs for interfaces not yet defined. Once defined develop/test interface.**	**N/A**

SEIT Roles/Responsibilities: Support for UPC Integration

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Government Sustainment Training • Define level of detail incorporation of changes course material and class schedules	SEIC Training • Develop JMPE (non CC, Common UPC) training • The Contractor shall staff trainers, which shall provide regularly scheduled training to JMPS Software • Developers, including lessons learned, Framework, architecture, integrationprocess. • UPC & cert. training	MPEC FW/CC developers Training • Attend training • Provide training inputs for Instructions manuals	MPEC UPC Developers Training • Attend training • Provide training inputs for instructions manuals	N/A

SEIT Roles/Responsibilities: Compliance Design Standard and Tech Rul

Government Program Management	SEIC	MPEC Developers (FW/CS)	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
System Engineers Design Standards • Identifies the desired design standards, approve waivers, as required • Develop Business and Technical Rules Systems Engineers User developed apps • Identify potential user developed applications for integration within the Mission Planning Enterprise	SEIC Design standards • Ensures adherence and compliance with design standards (e.g.. JTA, DII COE) • Review JTA/COE standards for full understanding, conduct compliance standards checks on framework, CC, UPC; document and report deviations from standards. • Ensures adherence and compliance with business and technical rules (e.g.. CMM, IEEE), provides operational expertise on mission planning. • Identifying modifications needed to standards and JMPS business and technical rules. User developed Apps • Integrate User Developed Applications into the Mission Planning Enterprise, as requested by the Government • Determine interface	MPEC FW/CC Developers Design standards • Comply with Design standards (e.g JTA, DII COE) • Comply with B&T rules	MPEC UPC Developers Design standards • Comply with design standards (e.g JTA, DII COE) • Comply with B&T rules	N/A •Comply with B&T rules

SEIT Roles/Responsibilities: System Verification and Validation

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Systems Engineers System Tests • Compliance tests, COE, System to System Test, C4ISP • Prepare test planning documentation, schedule, and conduct formal DT/OT testing. • Provide initial C4ISP products. • Provide C2 Enterprise Reference Architecture (C2ERA) • Provide a Joint Mission Planning assessment on C2ERA. • Manage and oversee testing efforts, provide	SEIC System Tests • Assist and provide systems engineering and DT/OT test support to the government in writing the test plan documentation, and test report. • Provide Schedule inputs and conduct system of systems testing, prepare reports and documentation. • Review/Assess C2ERA, per government direction • Assist and provide systems engineering and system of systems/external systems test support. Support the Government in writing the test plan documentation, and test report. Interface with external developers, and review C4ISP. Attend testing meetings/reviews. • Develop test plans and procedures, along with test scripts. Conduct actual	MPEC FW/CC developrs System Tests • Provide Test Support,	MPEC UPC Developers System tests • Provide Test Support	Provide Test Support, As required

SEIT Roles/Responsibilities: System Security Certification

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Systems Engineering Security • Provide Security guidance	SEIC Security • The SEIC Contractor shall provide an ensure compliance of vulnerability assessment by JMPE developers defined as CC, FM, UPCs documented in Vulnerability Assessment CDRL (Owner) • Conduct testing, and review results from security tests from developers. Prepare/submit accreditation and certification paperwork for government. Maintain certification and accreditation paperwork for all required systems/components. Ensure updated accreditation and	MPEC FW/CC developers Security • Comply with Vulnerability Assessment results and make modifications as required	MPEC UPC Developers Security • Comply with Vulnerability Assessment results and make modifications as required	Legacy developers Comply with Vulnerability Assessment results and make modifications as

Integration of Flight Planning/Asynchronous Test

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Systems Engineering Flight Planning Software • Assist in the identification of any additional flight planning software is identified for the CC, Framework Maintenance developments. • Monitor the progress, sets priorities, task/coordinate with SEIC contractor Asynchronous Test Systems Test Engineers • Provide SEIC on which developer to support;	SEIC Flight Planning Software • Assist in the identification of any additional flight planning software is identified for the CC, Framework Maintenance developments. • Receive source code, verify source code per documentation, determine the integration solution, check source code in, integrate to interfacing systems, develop integration test scripts, conduct testing. Asynchronous Test • Assist in development of test plans, test procedures and test scripts. Assist in conduct of actual tests with developers. Assist in regression testing. • Assist in preparation of test	MPEC FW/CC developers • Provide inputs to team on any flight planning software that requires integration.	MPEC UPC developers • Provide inputs to team on any additional Common Software that requires integration.	N/A

SEIT Roles/Responsibilities: Manage Operational Use Cases

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Systems Engineering defines the level of detail and resolve interface disconnections for operational use cases Provide advice on interface changes and potential impacts to other component developers/external systems	Contractor extends existing Operational Scenario's defined in JMPS Object Model Verifies traceability of operational use case flow to software development	Contractor complies with changes as a result of new Operational use cases and ensures Traceability into software development .	Contractor complies with changes as a result of new Operational use cases and Ensures traceability into Software development	N/A

SEIT Roles/Responsibilities: System to System Compliance e.g C4ISP

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Systems Engineers C4ISP • Provide current C4ISP views to team. Provided C4ISP guidelines in SEIC offeror's library.	SEIC C4ISP • Applying and enforcing consistent and/or compatible architecture-based approaches where practical. This should include but may not be limited to using architecture-based approaches when supporting C4ISP preparation efforts to document JMPS's relationship (e.g., interfaces, data needs) to other parts of the DoD's C2 system of systems, examining options and forming recommendations regarding the reuse of appropriate design patterns, functionality, and data across products supporting the JMPS Enterprise, and maintaining management over the collective set of developed, in development, and planned JMPS product functionality and data and how they relate to the provision of specific Warfighter capabilities reflected in high-level (e.g., C4ISP) JMPS architecture views.) At Government direction,	MPEC FW/CC Developers • Comply with Architecture guidelines .	MPEC UPC Developers • Comply with Architecture guidelines .	N/A

SEIT Roles/Responsibilities: Top Level Architecture and Interdependenc

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Top-level Architecture Work with contractor to define interdependencies, top-level architecture and business and technical rules	SEIC Top Level Architecture Enforcing adherence to design standards and JMPS business and technical rules, and recommending modifications as needed to JMPS design standards and business and technical rules Evolve existing Top Level Architecture document found in the SEIC Offerors library Post Top-level Architecture on website Provide a logical data model describing all the mission planning entities and their relationships. Recommend/apply 3rd normal form data model Develop Physical Model and publish for developers. Determine justification (i.e potential duplication) for model and impact to existing development activities	MPEC FW/CC developers Top-level Architecture • Comply with Architecture guidelines .	MPEC UPC Developers Top-level Architecture • Comply with Architecture guidelines .	N/A

SEIT Roles/Responsibilities: Maintenance Agreements and COTS

Government Program Management	SEIC	JMPE Developers (FW/CS)	UPC	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Government Business Operations Maintenance Agreements Reviews and provides direction on software maintenance agreements COTS Purchase COTS Manage User Licenses with user support (govt) activities.	SEIC Maintenance Agreements Contractor shall manage Software Maintenance Agreements, per Government direction COTS Supporting the Government in maintaining COTS upgrades through evaluations for software upgrades and providing recommendations of what upgrades to pursue and when to incorporate them	MPEC FW/CC Developers Maintenance Agreements N/A COTS Supporting the Government in maintaining COTS upgrades through evaluations for software upgrades and providing recommendations of what upgrades to pursue and when to incorporate	MPEC UPC Developers Maintenance Agreements N/A COTS Supporting the Government in maintaining COTS upgrades through evaluations for software upgrades and providing recommendations of what upgrades to pursue and when to incorporate	Legacy Developers Maintenance Agreements N/A COTS Supporting the Government in maintaining COTS upgrades through evaluations for software upgrades and providing recommendations of what upgrades to pursue and when to incorporate them into maintenance releases

SEIT Roles/Responsibilities: Supporting UPCs and Knowledge Repositor

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Systems Engineers Support UPC • Attend design reviews, TIMs, UPC events Knowledge Repository • Support Knowledge repository definition	SEIC Support for UPCs Attend design reviews, TIMs, UPC events. Knowledge Repository • Contractor shall track and version all Developer documentation on a web site and provide accessibility to all JMPS Software contractors. • Be responsible to maintain and keep knowledge repository current on a Government provided website in support of longevity of the program	MPEC FW/CC Developers Support for UPCs Invite SEIC contractor and Government to design reviews, TIMS. Knowledge Repository • Ensure documentation is current and provided to SEIC contractor in support of program repository, as Required	MPEC UPC Developers Support for UPCs • Invite SEIC contractor and Government to design reviews, TIMS and UPC events. Knowledge Repository • Ensure documentation is current and provided to SEIC contractor in support of program repository, as Required	Legacy DevelopersI •Invite SEIC contractor and Government to design reviews, TIMS. Knowledge Repository •Ensure documentation is current and provided to SEIC contractor in support of program repository, as Required

SEIT Roles/Responsibilities: Configuration Management

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Systems Engineers CM • Government provides Release test • Now, other team members may Incorporate into their single baseline	SEIC CM • CC received and all framework and Maintenance updates • SEIC builds the CC with The JMPS framework, including any maintenance updates • If fixes required, send to CC developer • Test builds for Interface Compliance Framework to CC to Platform UPCs • Provides a build status to Team (not building) • Determines if Acceptance criteria Is Met (I.e SVD, Source Code Listing Requirements Trace interdependencies Reports Current Status, build failures, Performance metrics, and memory analysis(I.e accepted) • SEIC provides a Qualification test for component SEIC Contractor performs a System level test Ensures requirement met	MPEC FW/CC Developers CM • Provide Interface test drivers for Contractor • Release software to contractor • Release (initial definition, source code, documentation, SVD, source code listing, build scripts, interdependencies)	MPEC UPC Developers CM • Provide Interface test drivers for Contractor • Release software to contractor • Release (initial definition, source code, documentation, SVD, source code listing, build scripts, interdependencies)	N/A

SEIT Roles/Responsibilities: Building and Installing Integration Scripts

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Systems Engineers Scripts • Build scripts are provided	SEIC Scripts • Build Scripts • Build scripts that can be automatically tailored • Install scripts • Execute Build scripts and verify install scripts are automated.	MPEC FW/CC Developers Scripts • Provide contractor build/install scripts, Preferable automatically tailorable • Provide install scripts	MPEC UPC Developers Scripts • Provide contractor build/install scripts, Preferable automatically tailorable • Provide install scripts	N/A N/A

SEIT Roles/Responsibilities: Developing Processes

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
System Engineers CM Process • Government shall be able to successfully manage with imports of various CM tools, since common capabilities developers or UPCs developers CM tools may vary. Managing Multiple Baselines • Government shall be able to successfully manage multiple baselines and work with the contractor to define a process to effectively and efficiently manage baselines (s) Metrics • The Government shall analyze the metrics status by the contractor. Problem Reporting • The Government shall work with the contractor to provide problem	SEIC CM Process • Contractor shall be able to • Define a process to successfully manage with imports of various CM tools, since common capabilities developers or UPCs developers CM tools may Define a backup plan describing how often, backups occur, monthly weekly Managing Multiple Baselines • Contractor shall be able to Define a process to successfully manage\Multiple Baselines Metrics • The contractor shall work with the Government to provide a set of metrics • The contractor shall collect the metrics and report in a standard Format CDRL (Owner) Management Metrics Report • Contractor shall provide monitoring and reporting of metrics for JMPS development, i.e CCs, UPCs	MPEC FW/CC Developers • Comply with process definition	MPEC UPC developers • Comply with process definition	N/A

SEIT Roles/Responsibilities: Developer Support

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Sustainment Help desk support • Developer Help Desk • Provide developer helpdesk oversight. UPC consulting • Define UPC support levels	SEIC Developer Help Desk • Provide help desk support for JMPS/MPS and legacy systems (if required) developers. Help integrating developers troubleshoot problems and coordinate with specific developer(s). Maintain problem logs. Submit Problem reports and DRs. • The contractor shall staff a help desk so that JMPS developers can submit questions, which shall be investigated and addressed by the aforementionned staff. Questions shall be able to be submitted via email and via regular telephone calls. • The contractor shall publish lessons learned from allsoftware developers, users. UPC Consulting • Provide training, consulting, SDKs and wizards, including identification of reusable software components	MPEC FW/CC Developers • Support Developer helpdesk • Provide lessons learned • Provide inputs for website to keep it current UPC Consulting • Attend training, utilize developer website	Provide lessons learned UPC Consulting Attend training, utilize developer website.	Provide Lessons learned

SEIT Roles/Responsibilities: Maintaining Close Support to Warfighter

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Government Business Operations Market Mission Planning • Government responsibility to market Mission Planning Services Conferences • Government shall provide prototyping of advanced technology and demonstrate to the SEIT team members. • Recommendations for system enhancements resulting from advanced technology prototyping activities. Exercises • Government shall	SEIC Market Mission Planning • Be ready to provide operational mission planning expertise to PMO to assist with marketing JMPS to warfighters. Provide SMEs proficient in JMPS/MPS. Interact through message traffic, telephone, meeting participation, installation visits, etc., as required by government Conferences • Contractor shall be responsible for conducting user acceptance meetings and interviews in order to provide the consistent overall look-and-feel scheme to support planning activities. USI standards specified under hw/sw requirements under CC/Framework section Review/provide recommendation for incorporation in JMPS	MPEC FW/CC Developers Market Mission Planning N/A Conferences • If requested, may • Implement prototyping results into framework maintenance Exercises • Comply with Government direction on which, if any exercises	MPEC UPC Develoeprs Market Mission Planning N/A Conferences • If requested, May implement prototyping results into framework maintenance Exercises • Comply with Government direction on	N/A Conferences •If requested, may implement prototyping results into framework maintenance Exercises Comply with government direction on which, if any

SEIT Roles/Responsibilities: Integration Faci

Government Program Management	SEIC	MPEC FW/CC Developers (FW/CS)	MPEC UPC Developers	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Government Business Operations Facility • Establish requirement for SEIC Integration Facility. • Determine classification level of facility – TS • Purchase hardware/software for facility	SEIC Facility • Provide systems administration support for JMPS/MPS and legacy systems (if required) used for integration. Administer user accounts and logon. Troubleshoot system problems. Provide network administration support (NIPRNET & SIPRNET) for JMPS/MPS and legacy systems (if required) Security of Facility • Manage, protect, and control GFE/GFI through record keeping, documentation, reporting, physical inventory, maintenance, and storage. Comply with FAR 45.5 and develop a Physical Security Plan, including • Establish and maintain secure facility for classified/SAR component integration. Establish procedures for access, protection and storage of	MPEC FW/CC Developers Facility • Request and Obtain administration privileges, if needed Provide components for integration in integration facility, including spiral development schedules for integration times. Security • Ensure clearances/personnel for developers planning to integrate software	MPEC UPC Developers Facility Request and Obtain administration privileges, if needed Provide components for integration in integration facility, including spiral dev. schedules for integration times, if needed Security Ensure clearances/personnel for developers planning to integrate software Provide HW/Software	N/A

SEIT Roles/Responsibilities: HW/Software Requirements *Programmers Gu*

Government Program Management	SEIC	JMPE Developers (FW/CS)	UPC	Legacy systems such as PFPS, MPS, TAMPS, AMPS
Defines the User Manual format Defines a DID for Programmers Guide The Contractor shall integrate user manuals from all JMPS software Contractors in order to publish a detailed and an abridged version of a comprehensive JMPS user manual. (AF only, Navy	Contractor ensures the inputs received from component developers is consistent with Format for User Manual and Programmers guide Contractor statuses CC developers, UPC deficiencies in Compliance The Contractor shall *be responsible to* Integrate */update/change* the programmer's guide. Owner (Programmers Guide) Contractor shall provide Programmer Folders (CDRL) Owner, containing developer engineering notes, process artifacts, documentation Provide inputs to sustainment (User manual inputs)	All JMPS software Contractors programmer guide/user manual inputs shall be forwarded to the Contractor Provide inputs for Programmers Folder	All JMPS software contractors programmer guide/user manual inputs shall be forwarded to the Contractor Provide inputs for Programmers Folder	Legacy systems should provide users manual updates to Government Provide inputs for Programmers Folder

SEIT Roles/Responsibilities: HW/Software Requirements – *COTS*

Government Program Management	SEIC	MPEC FW/CC Developers	UPC	Legacy systems
Government Business Operations COTS • Provide direction for hardware purchases • Provide direction for COTS purchase • Purchase hardware and upgrades • Ensure security and COE level 6 compliance • Government shall provide Engineering design assessment support for all common capabilities, and Platform UPCs • The Government shall provide the JMPS security target • Develop OSS&E plan, ensure compliance • Evaluate proposed modifications for impact on the overall security architecture	SEIC COTS • Evaluate potential Hardware upgrades and status impacts and document in Reports CDRL (Owner) • Provide Recommendations to Government, update integrated master schedule • Define all current hardware requirements • Update in the Software version description (SVD) (Owner) • Define all COTS and licensing costs • Purchase COTS upgrades, if Required and ship to Government site for further distribution • Ensure all certifications, security, windows logo, COE level 6, OSS&E • Contractor shall provide Engineering design assessment support for all common capabilities, UPCs • The contractor shall ensure JMPE developer compliance with the	MPEC FW/CC Developers COTS • Update contractor with any COTS/HW upgrades required • Inputs for Software Version Description (SVD) • Build components per Certifications, Security requirements, windows Logo, COE Compliance level 6 and OSS&E • The framework maintainer shall invite Government/co	MPEC UPC Developers • Same As Developer	Same

SEIT Roles/Responsibilities: HW/SW Reqts
Component Testing/Training

Government Program Management	SEIC	MPEC FW/CC Developers	MPEC UPC Developers	Legacy systems
System Test Component Test Provide test approach to component testing, acceptance, not accepted and provide rationale. Training inputs • Users Manuals • Define level of detail incorporation of changes course material and class schedules User training • Conduct weapons school training	SEIC Component Test • The contractor shall provide component-based testing. • This shall provide evidence to support reducing testing in which the entire JMPS functionality shall not have to be re-validated each time a component is modified or replaced, or a new component is added to the system. • Coordinate with Government test team Training inputs • Users Manuals • Develop JMPE (non CC, Common UPC) training The Contractor shall staff trainers, which shall provide regularly scheduled training to JMPS Software • Developers, including lessons learned, Framework, architecture, integration process. • UPC & cert. training • User training • Integrate CC, Framework maintainers and UPC training modules	MPEC FW/CC Developers Component Test • Conduct requirement test of components Training Inputs • Attend training • Provide training inputs for instructions manuals • Developer training inputs (SDK, Wizards) CC	MPEC UPC Developers Component Test • Conduct Requirement test of components Training Inputs • Attend training • Provide training inputs for instructions manuals • Developer training	Same N/A N/A

JMPS Program



Mission Planning

Systems Engineering Integration Contract (SEIC)

Transition Plan “Straw man”

Transition Plan Overview

- Currently, NGIT is the Short-term SEIC contractor
- Plan to transition Short-term SEIC to Long-term SEIC
  - Short-term SEIC contract ends 4/22/04
  - Long-term SEIC contract starts 3/31/04
- Transition Plan “Organizations” to smoothly transition resources

Transition Plan Benefits

- Reduce chance of interruption in System Engineering and Integration Contract Services
- Establishing a long-term relationship with Government Organization and Systems Engineering and Integration Contractor

Transition Plan

- Identify Plan/Process associated with distributed entities
  - Identify Roles/Responsibilities for each organization and activity to be performed
- Describe the plan for transitioning deliverable items from Short-term SEIC (knowledge-based transfer) to support organizations
  - Summarize the history of the Short-term SEIC
  - Identify current/planned activities

Transition Plan

- Identify critical needs (e.g. software, hardware, documentation, other resources)
  - Software – Identify and describe software tools needed to support Engineering efforts. These software may include UML modeling tools, test tools, configuration management tools, databases and data, and other software
  - Hardware – Identify and describe hardware and associated documentation
  - Documentation – Identify documentation to support the deliverables
    - Test plans, procedures, reports
    - Object Model
    - User/Operator manuals
    - Government Documentation (e.g COE, JTA)
- Describe the facilities to support future plans

Transition Plan

- Lessons learned, including advice
- Describe plans for training new SEIC Long-term contractor
  - Familiarization with current Short-term activities
- All activities needed to be performed to effectively transition need to be identify and may include:
  - Planning and coordination meetings
  - Preparation of hand-over of activities
  - Deliverables
  - Software/hardware to perform task in place
  - Resources
  - Training of resources
  - Schedule/milestones for transition
- Implementation Concept
  - Review current IMS activities to enable a seamless transition

Transition Plan Risks

- Identify risk and mitigation activities
  - Including all parties involved:
    - Navy, AF, Army, SOF, Short-term SEIC, Long-term SEIC
  - Deliver risk findings as an annex to Transition Plan

Transition Plan Assumptions

- Transition will occur starting on April 1, 2004
- Overlap time of Short-term and Long-term SEIC will last at a minimum of 3 weeks
- Learning curve is anticipated for Long-term SEIC
- Contract in place by March 31, 2004

BACKUP SLIDES

JMPS Technical Rules

- Design for extensibility
- DII COE Level 6 compliant
- Meet JMPS Security Target requirements
- Adhere to JMPS architectural standards
  - JMPS Object Model, COE USI Standards, Data Models, JMPS Interfaces
- Component design standards
  - Currently, Microsoft COM components
  - Interface Design Language (IDL) with semantics
  - Coding and Commenting standards
- Access to developer's problem database
- Comply with DoD directives
  - Use XML, Standardize Internet Protocol interfaces

These Rules Apply For All Future JMPS Developers